ABSTRACT

A system having a redundant topology for communication between one or more devices and a central hub. The system comprises a central hub or switch and one or more end nodes where each end node includes a first port and a second port. A first active cable is connected to the first port in each end node and a first port in the hub and, a second active cable is connected to the second port in each end node and a second port in the hub. Messages are transmitted across both the first and second cables to the first and second ports of the end nodes. The end node performs an integrity check on the messages received over the first and second cables and utilizes the first one to pass the check. Thus, if one cable malfunctions, the end node still is able to receive the message over the other cable without any loss of data.

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